

| STEM Objectives |   |
|-----------------|---|
| Science         | <p>Scientific Inquiry</p> <ul style="list-style-type: none"> <li>▪ Objective 1 Generating Evidence: Using the processes of scientific investigation (i.e., framing questions, designing investigations, conducting investigations, collecting data, drawing conclusions)</li> <li>▪ Objective 2 Communicating Science: Communicating effectively using science language and reasoning.</li> </ul> <p>Physical Science</p> <ul style="list-style-type: none"> <li>▪ Objective 1: Students will understand that objects have different properties that make them useful for different purposes.</li> <li>▪ Objective 2: Students will understand that when an object is balanced it remains stationary until another force is applied (push or pull) that causes it to move.</li> </ul> |
| Technology      | <ul style="list-style-type: none"> <li>▪ Objective 1: Students will be able to recognize technology in their everyday lives.</li> <li>▪ Objective 2: Students will understand the relationship between science and technology.</li> </ul>   |
| Engineering     | <ul style="list-style-type: none"> <li>▪ Objective 1: Students will be able to define a problem and design a solution.</li> <li>▪ Objective 2: Students will be able to test their designs, collect and analyze data, and then revise their designs based on evidence.</li> </ul>   |
| Math            | <p>Students will understand basic geometry and measurement concepts as well as collect and organize data.</p> <ul style="list-style-type: none"> <li>▪ Pose questions and gather data about self and surroundings.</li> <li>▪ Organize data obtained from sorting and classifying objects (i.e., lists, tables, and simple graphs).</li> </ul>  |

| Assessment of Initial Trap Designs  |                          |                        |                  |
|---|--------------------------|------------------------|------------------|
|   | Demonstrated Effectively | Emerged with Prompting | Not Demonstrated |
| Using provided materials, students were able to design a simple trap.   |                          |                        |                  |
| Within the design, there consisted of an object in balance (the trap).  |                          |                        |                  |
| Within the design, there was a force that caused the object in balance to move (mechanism of “springing” the trap). |                          |                        |                  |

| Rubric for Engineering Design Processes  |                          |                        |                  |
|--|--------------------------|------------------------|------------------|
|  | Demonstrated Effectively | Emerged with Prompting | Not Demonstrated |
| Students clearly defined the problem.  |                          |                        |                  |
| Given a basic trap design, students were able to modify their designs to make them more effective. |                          |                        |                  |
| Students were able to set up investigations in order to test their designs.                        |                          |                        |                  |
| Students were able to collect and analyze data from their investigations.                          |                          |                        |                  |
| Students were able to revise their designs based on evidence.                                      |                          |                        |                  |

| Rubric for Mathematical Computations                      |                          |                        |                  |
|---|--------------------------|------------------------|------------------|
|   | Demonstrated Effectively | Emerged with Prompting | Not Demonstrated |
| Students clearly stated question.                         |                          |                        |                  |
| Students were able to collect data from an investigation. |                          |                        |                  |
| Students clearly organized data in simple graphs.         |                          |                        |                  |